

REMARKS

Claims 1 to 64 are pending. Claims 4, 8-38, and 45-64 have been withdrawn from consideration. Claims 1-3, 5-7, 41 and 44 are currently amended. Claim 8, though currently withdrawn from consideration, has been amended in anticipation of the claim being rejoined and to expedite prosecution. Reconsideration of the application is requested.

A. Requirement for Election and Restriction

In the "Response to Restriction Requirement" submitted November 17, 2007, Applicants elected Group I (claims 1-44 and 59-62) and indicated that species F (directed to Fig. 16) read on the elected claims. Subsequently, and in response to further communications from the Patent Office, Applicants elected claims 1-3, 5-9, 11-13, 20-21, 35, 39-44, and 59-62 on September 2, 2008. In the current Office action, the Patent Office withdrew claims 8, 9, 11-13, 20, 21 and 35 "as being drawn to a non-elected invention/species."

Applicants traverse the withdrawal of claims 8, 9, 11-13, 20, 21 and 35 in the current Office Action because these claims do read on species F.

Page 2 of the Office action states:

Claim 8 recites "...the reservoir has an outlet opening to a connector tube integral with the reservoir, and the connector tube is received in the socket..." in lines 1-2. The feature is only found in the non-elected Species A (figure 5). In elected Species F (figure 16), the connector tube 485 is not integral with the reservoir 402. Claims 9, 11-13, 20 and 21 depend on claim 8. If the "connector tube" of Species F (figure 16) is in reference to the equivalent element of connector tube 15, the connector tube of Species F is not received in an integral socket of the spray gun.

The Patent Office is incorrect in characterizing element 485 as the "connector tube" of claim 8. Element 485 is a mating adaptor received by insert 480 to releasably secure reservoir 402 to spray gun 401. (See page 29, lines 25-30 in the originally filed application.)

As already anticipated by the Patent Office, reservoir 402 in Figure 16 can be understood by referring to reservoir 2 in Figure 5 because the application states at page 29, lines 6-8, "[f]or convenience, like reference numerals in the series 400 are used to indicate parts corresponding to the previous embodiments." Thus, reservoir 402 in Figure 16 includes a connector tube that corresponds to connector tube 15 in Figure 2. However, the connector tube is no longer visible in

the fully assembled spray device of Figure 16 in the same way that connector tube 15 is no longer visible in the fully assembled spray device of Figure 1.

Recognizing this, the Patent Office also stated that “the connector tube of Species F is not received in an integral socket of the spray gun.” However, this characterization is also incorrect because adaptor 485 is an optional component that can be eliminated to permit an outlet of the reservoir to be coupled to socket 421, either directly or with insert 480. In each case, the requirements in claims 2 and / or 8 that “the integral connector of the spray gun is a socket,” “the connector tube is integral with the lid of the reservoir,” and that “the connector tube is received within the socket” are satisfied.

Accordingly, Applicants request that claim 8 and claims 9, 11-13, 20 21 that depend from claim 8 either directly or indirectly be rejoined as reading on elected Group I and species F.

As for claim 35, the Office action states:

Claim 35 recites “...the end of the sidewall is received in the socket of the spray gun...” in lines 2-3. The feature is only found in the non-elected Species D (figure 12) and Species E (figure 13).

The Patent Office has incorrectly concluded that this feature is not found in Species F. Referring again to Figures 2 and 16, reservoir 402 in Figure 16 corresponds to reservoir 2 in Figure 2. Reservoir 2 includes lid 10 having connector tube 15 which, upon being received by the integral socket on the spray gun, is no longer visible in the fully assembled spray device of Figure 1. The elements of reservoir 402 that correspond to lid 10 and connector tube 15 in Figure 2 satisfy the requirement in claim 35 to have an “end of the sidewall [that] is received in the socket of the spray gun to connect the reservoir to the spray gun.” Accordingly, Applicants request that claim 35 be rejoined as reading on elected Group I and species F.

B. Objections to the Drawings

The Patent Office objected to the drawings under 37 C.F.R. §1.83(a) for purportedly not showing every feature of the invention specified in the claims. These objections are respectfully traversed. The Office action referred to several claim features which are individually discussed below.

1. “Connector boss formed separately from the body of the spray gun and permanently secured thereto” recited in claim 7.

Claim 7 has been amended to state that the “integral connector boss is a separate piece that is permanently secured to the body of the spray gun” but Applicants will address the drawing objection in the event that the Patent Office would seek to apply it to the amended claim as well. 37 C.F.R. §1.81(a) provides that “the applicant for a patent is required to furnish a drawing of his or her invention where necessary for an understanding of the subject matter sought to be patented....” Applicants submit that in view of the detailed information provided in the specification, such as the below statement at page 14, lines 6-9, an additional drawing is not necessary for an understanding of the subject matter sought to be patented:

The inlet connector may be formed integrally with the spray gun, for example by casting or moulding. Alternatively, the inlet connector may be formed separately and permanently secured to the spray gun, for example by welding or adhesive bonding.

2. “Air vent” recited in claims 41 and 44.

An air vent is shown throughout the drawings. See, for example: element 8a in Figures 1, 3 and 5; element 308a in Figure 12; and element 508a in Figure 19.

3. “Disposable container” recited in claim 42.

A disposable container is already illustrated in the drawings. See, for example, element 9 in Figure 3 and element 309 in Figure 12. For reference, element 9 is described as a “disposable liner” at page 19, line 29 and element 309 is similarly described at page 26, line 13.

4. “Inner container” recited in claim 43.

An inner container is also presented in the drawings. See, the explanation given in the preceding section for a disposable container; elements 9 and 309 satisfy the requirement for an inner container.

C. Rejections Under 35 U.S.C. §112

Claims 41, 43 and 44 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

Applicants regard as the invention. These rejections are respectfully traversed and are discussed in the separate sections below.

1. Claim 41. Applicants have amended claim 41 to replace “the” end with “an” end. This provides antecedent basis for the term “end” and renders the rejection moot.

2. Claim 43. The Patent Office asserted that the term “disposable container” was doubly included because it also appears in claim 42. Claim 43 depends from claim 42 and claim 42 specifies that “the reservoir is provided with a disposable container that can be thrown away after use.” Claim 43 describes the reservoir in more detail, explaining that it “comprises an outer container and an inner container” with the inner container being “separate from the outer container so that [it] can be removed and thrown away after use.” That is, the reservoir’s disposable container in claim 42 is the reservoir’s (disposable) inner container in claim 43. Accordingly, Applicants submit that there is no double inclusion of the term “disposable container” in claim 43.

3. Claim 44. Applicants have amended claim 44 to replace “the” end with “an” end. This provides antecedent basis for the term “end” and renders the rejection moot.

Applicants submit that the rejections of claims 41, 43 and 44 under 35 U.S.C. §112, second paragraph, have been overcome and that the rejections should be withdrawn.

D. Applicants’ Invention

In the presently claimed embodiments, Applicants’ invention is directed to a liquid spraying apparatus that comprises a spray gun and a reservoir for a liquid to be sprayed. The reservoir comprises a container for the liquid to be sprayed and a removable lid that is arranged to close an opening in the container. The lid has an outlet connectable to the spray gun to permit the liquid to be withdrawn from the reservoir in use. The spray gun has an integral connector that is arranged for non-threaded engagement with a co-operating connector on the lid so as to releasably secure the reservoir to the spray gun.

Applicants have amended claim 1 to specify that the reservoir comprises a container for the liquid to be sprayed and a removable lid that is arranged to close an opening in the container with the lid having an outlet connectable to the spray gun to permit the liquid to be withdrawn from the reservoir in use. This amendment is supported by the original application at page 19, line 28 to page 20, line 13 and the drawings (see, for example, Figures 1-5).

Applicants have further clarified that the reservoir is releasably secured to the spray gun by an integral connector on the spray gun that is arranged for non-threaded engagement with a co-operating connector on the lid. This amendment is supported by, among other things, Figures 4-6 in the application and the description at page 20, lines 20-25.

The integral connector on the spray gun is described in detail in the application and refers to a connector that is permanently joined with the spray gun body. For example, the connector and the spray gun body could be formed as a single piece by casting or moulding suitable material or the connector could be formed as a separate piece that is permanently secured to the spray gun body by welding or adhesive bonding. At page 6, lines 6-10 the application states:

The connector boss may be formed integrally with the body of the spray gun. For example, the body and boss may be a casting of metal or alloy or a moulding. Alternatively, the connector boss may be formed separately from the body of the spray gun and permanently secured thereto. For example, the connector boss may be welded or adhesively bonded to the body of the spray gun.

Similar description is found elsewhere in the application such as at page 14, lines 6-9 and page 20, lines 27-30.

Applicants have amended claims 5-7 to reflect the integral connector and to indicate that the integral connector and the spray gun body could be one piece (claim 6) or that the integral connector could be a separate piece that is permanently secured to the spray gun body (claim 7).

Amendments to claims 2 and 3 describe that the outlet from the lid is a connector tube, support for which may be found in original claim 8 as well as at page 20, lines 8-10 of the application.

Although claim 8 has been withdrawn from consideration, Applicants have amended it in anticipation of this claim being rejoined. The amendments conform claim 8 to claims 1 and 2.

E. Rejections Under 35 U.S.C. §102(b)

Claims 1-3, 5-7, 39, 40 and 41 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,236,459 to McRitchie. These rejections are respectfully traversed.

McRitchie describes “spray gun 10 [that] is equipped with a component or fitting 12 equipped with a nozzle construction and an connecting portion 16 to which is removably secured a material containing receptacle or hopper 18” (column 2, lines 46-49). Hopper 18 is illustrated in Figure 10 and is described at column 5, lines 43-52 as being provided with a cover 166 and various fittings that secure the cover in position. As explained at column 6, lines 10-18, “[w]hen it is desired to apply or spray material from the spray gun ... material from the hopper flow[s] into the interior of the fitting 12....”

Applicants’ claims may be readily distinguished from McRitchie on several grounds.

First, McRitchie does not provide a reservoir comprising a container for liquid to be sprayed and a removable lid that is arranged to close an opening in the container wherein the lid has an outlet that is connectable to the spray gun to permit the liquid to be withdrawn from the reservoir in use. To the contrary, material is discharged from McRitchie’s hopper at the end opposite the end having the cover, not through an outlet in the cover.

Second, the McRitchie spray gun does not include an integral connector that is arranged for non-threaded engagement with a co-operating connector on a lid so as to releasably secure the reservoir to the spray gun. The cover on McRitchie’s hopper is not connected to the spray gun.

Third, although McRitchie describes connectors arranged for non-threaded engagement, those connectors are not integral to the spray gun. The connectors are specifically intended to be readily removable and interchangeable with other connectors.

McRitchie’s “invention relates to a method of spraying materials and to a spray gun or spray apparatus particularly adaptable for spraying various materials including heavy or viscous materials as well as more liquidus coating materials.” (Column 1, lines 8-12.)

One object of McRitchie’s invention “resides in a spray gun or spray applicator wherein fittings or adapters may be quickly and readily interchanged to facilitate the use of the spray gun with various materials and wherein the fittings may be quickly interchanged without the use of special tools.” (Column 1, lines 40-45.)

The operation of McRitchie's spraying apparatus can be easily appreciated from the passages that follow.

When the spray gun is to be used for applying viscous or slurries of materials contained in the hopper 18, the fitting 12 is employed. The fitting 12 is arranged to be quickly assembled to or disengaged from the member 48 secured to the front end region of the gun body 24.¹

FIGURES 7 and 11 illustrate a modified form of fitting usable in lieu of the fitting 12 where the supply of material may be a pressurized tank containing material or a material delivering pump. The assembly illustrated in FIGURE 11 includes a fitting 194 having a hollow cylindrical portion 196 and a lateral stem or branch portion 198.²

The fitting 194 is constructed to be removably secured to the fitting 48 of the spray gun construction and for receiving the nozzle construction 112...³

FIGURES 12 through 17 illustrate the spray gun and fitting construction for utilization of the spray gun in spraying or delivering liquidus or low viscosity materials such as paints, resinous coatings or the like. In this form of the invention, the spray gun 10 is equipped with a fitting construction and assembly 210, the assembly 210 being readily affixed to and removed from the fitting 48 through a pin and bayonet slot-like arrangement hereinbefore described.⁴

From the foregoing description it will be seen that through the use of the interchangeable fittings 12, 196 and the fitting assembly 210, the latter being shown in FIGURES 12 through 17, the spray gun construction is quickly and readily adaptable for use in spraying viscous or heavy materials in slurry form or the construction employed for delivering liquidus coating materials through the use of the fitting assembly and components 210. The interlocking arrangements provided by the pin and bayonet slot-type connections enable an operator to quickly interchange fittings to adapt the gun to many and various uses as hereinbefore described.⁵

Accordingly, McRitchie requires a readily and easily removable connector in order to provide interchangeable fittings for spraying different materials, *not* a connector that is integral to the spray gun body as called for in Applicants' claims. As explained above, Applicants' claimed

¹ Column 3, line 75 – Column 4, line 5.

² Column 6, lines 58-64.

³ Column 6, lines 70-72.

⁴ Column 7, lines 54-65.

⁵ Column 10, lines 42-53

integral connector refers to a connector that is permanently joined with the spray gun body. For example, as noted in claim 6, the connector and the spray gun body could be one piece. (This could be provided by casting or moulding a suitable material.) Alternatively, as noted in claim 7, the connector could be a separate piece that is permanently secured to the spray gun body. (This could be accomplished by welding or adhesive bonding.)

McRitchie describes neither alternative because the connectors and the spray gun body are *not* one piece – they are separate pieces that are *not* permanently secured to each other. Thus, claims 5-7 are independently patentable over McRitchie.

F. Rejections Under 35 U.S.C. §103(a)

Claims 1-3, 5-7 and 39-44 were rejected under 35 U.S.C. §103(a) as being unpatentable over International Patent Publication WO 98/32539 to Joseph et al. in view of McRitchie. These rejections are respectfully traversed. According to the Patent Office (page 6 of the Office action):

Joseph discloses the limitations of the claimed invention with the exception of the non-threaded engagement between the spray gun and reservoir. Joseph discloses, in column 5, lines 38-41, “At the other end 23, the adapter is shaped to match the standard attachment of the spray gun paint pot (typically a screw thread). McRitchie discloses a standard attachment bayonet connection 154. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a non-threaded engagement, such as a bayonet connection, to the device of Joseph as taught by McRitchie to utilize Joseph’s device on a bayonet connection spray gun.”⁶

The passage referred to by the Patent Office discusses adapter 21 which is clearly illustrated in Figures 3 and 4 of Joseph as a separate component. According to Joseph, “The paint pot 11 is attached to the spray gun 1 through the use of an adapter 21 shown, separated from the paint pot, in Fig. 3 and (in cross-section) in Fig. 4.” (Page 8, lines 25-26)

Joseph fails to provide a spray gun having an integral connector that is arranged for non-threaded engagement with a co-operating connector on the lid to releasably secure the reservoir to the spray gun as called for in Applicants’ claims. Adapter 21 is a separate piece; the spray gun

⁶ The Office action refers to column 5, lines 38-41; however, there is no corresponding text at this location. Applicants believe that the Patent Office was referring to page 8, last paragraph but invite the Examiner to correct this assumption if it is wrong.

body and the adapter are *not* one piece. Adapter 21 is *not* permanently secured to the spray gun body.

Combining Joseph with McRitchie does not reach Applicants' invention since the result would still be a spray gun having a separate, easily removable connector, not a connector integral with the spray gun body as either one piece or a permanently secured separate piece.

G. Conclusion

In view of the above, it is submitted that the application is in condition for allowance. Early and favorable reconsideration of the application as amended is requested. If the Examiner has any continuing questions or concerns regarding the application, he is encouraged to directly contact Applicants' undersigned representative to discuss the same.

Respectfully submitted,

January 26, 2009
Date

By: Steven E. Skolnick
Steven E. Skolnick, Reg. No.: 33,789
Telephone No.: 651-736-6935

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833